Application No.: 09/617,669

Office Action Dated: April 10, 2007

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (previously presented) A computer system for running one or more software applications, wherein the software applications are suitable for generating a video output, the computer system comprising:

a host operating system suitable for displaying a graphical user interface; multiple operating systems running in environments emulated by one or more emulator programs running on the host operating system; and

wherein the host operating system is able to display a reduced-size representation of the video output of at least one operating system from the multiple operating systems that are being operated in a background mode.

- 2. (previously presented) The computer system of claim 1, further comprising one or more virtual video memory components suitable for storing the video output of the operating systems.
- 3. (previously presented) The computer system of claim 2, wherein the one or more of the video memory components are VRAM memory.
- 4. (previously presented) The computer system of claim 2, wherein the operating systems operating in a background mode are active; and wherein one or more thumbnail images for the operating systems are generated from the video information stored on the video memory components at predetermined intervals while the software applications are active.
- 5. (original) The computer system of claim 4, wherein the predetermined intervals are such that the thumbnail images are real-time representations of the video output from the active software applications.
- 6. (original) The computer system of claim 1,

wherein the graphical user interface is a windowing environment suitable for displaying one or more windows; and

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wherein the portion of the graphical user interface comprising the reduced-size representation is a window.

7. (previously presented) The computer system of claim 1, wherein the reduced-size representation is created using a bilinear sampling technique.

8. (previously presented) A computer system for running one or more software applications, wherein the software applications are suitable for generating a video output, the computer system comprising:

a host operating system suitable for displaying a graphical user interface; multiple emulated virtual machines being emulated by one or more emulator programs running on the host operating system; and

wherein the host operating system is able to display for a user reduced-size representation of the video output of each virtual machine.

9. (previously presented) The computer system of claim 8, wherein the reduced-size representations are representations of the video outputs of the virtual machines that are being operated in a background mode.

10. (previously presented) The computer system of claim 8,

further comprising a virtual video memory associated with each of the virtual machines; and

wherein the reduced-size representations are generated from the video information stored in the virtual video memory associated with each virtual machine.

11. (previously presented) A method for displaying reduced-size images of multiple computer systems running in virtual machine environments, said method comprising the steps of:

suspending one or more of the multiple computer systems by saving to memory in a host computer system the image of each of the suspended computer systems;

reading in at an emulator program from memory in the host computer system the images of the suspended computer systems;

interpreting in the emulator program the contents of saved images of the suspended Page 3 of 9

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computer systems; and

displaying reduced-size representations of the suspended computer systems.

12. (previously presented) A method for displaying reduced-size images of multiple computer systems in virtual machine environments and executing on a single computer system, said method comprising the steps of:

reading in from memory in a host computer system the images of the computer systems;

interpreting in the emulator program the contents of the images of the emulated computer systems;

displaying reduced-size representations of the computer systems; and periodically updating the reduced-size representations of the computer systems.

13. (previously presented) The method of claim 12 wherein the step of displaying reduced-size representations of the computer systems are performed on a computer system comprising:

the host operating system suitable for displaying a graphical user interface

- 14. (previously presented) The method of claim 13 wherein the host operating system is able to display for a user reduced-size representations of the video output of computer systems that are being operated in a background mode.
- 15. (previously presented) The method of claim 14 wherein the computer systems further comprise one or more virtual video memory components suitable for storing the video output of the computer systems.
- 16. (previously presented) The method of claim 15 wherein one or more of the video memory components are VRAM.
- 17. (canceled)
- 18. (previously presented) The method of claim 12 wherein the host operating system is able to display for a user reduced-size representations of the video output of each computer system being operated in a background mode.

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19. (previously presented) The method of claim 18 wherein the reduced-size representations are representations of the video outputs of the virtual machines that are being operated in the background mode.

- 20. (previously presented) The method of claim 19 wherein the computer systems further comprises one or more virtual video memory components suitable for storing the video output of the computer systems.
- 21. (previously presented) A method of displaying images on a display coupled with a host computer, the method comprising:

providing a plurality of virtual machines and respective operating systems on the host computer, each virtual machine comprising a virtualized computer environment hosting a corresponding one of the operating systems on the host computer, where the operating systems hosted on the virtual machines are executing concurrently on the same host computer; and

displaying together on the display thumbnail images comprising reductions of, respectively, display screen images generated by the virtual machines.

- 22. (previously presented) The method according to claim 21, wherein the thumbnail images are based on image data from video RAMs of the virtual machines.
- 23. (previously presented) A method of displaying an image on a display coupled with a host computer, the method comprising:

providing a first virtual machine and a second virtual machine configured for concurrent execution on the host computer; and

concurrently displaying, on the display, a first thumbnail of video output of the first virtual machine and a second thumbnail of video output of the second virtual machine.

24. (previously presented) The method according to claim 23, further comprising concurrently displaying real time thumbnail videos of, respectively, the video outputs of the virtual machines.

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25. (previously presented) The method according to claim 23, wherein first thumbnail is derived from video RAM of the first virtual machine, and the second thumbnail is derived

from video RAM of the second virtual machine.

26. (previously presented) The method according to claim 23, further comprising

allowing a user to interact with the thumbnails to control the virtual machines.

27. (previously presented) The method according to claim 23, wherein displaying of the

thumbnails is accomplished by accessing video RAMs of the virtual machines.

28. (previously presented) The method according to claim 23, wherein the thumbnail

images comprise reduced versions of images generated for display by the virtual machines.

29. (previously presented) The method according to claim 23, wherein the thumbnails

reflect the video outputs of the virtual machines in real time.

30. (previously presented) A method performed in a computer configured with a plurality

of virtual machines and software for managing the virtual machines, the virtual machines

each comprising a video RAM, the computer being configured to execute the virtual

machines concurrently on the computer, the method comprising:

accessing the video RAMs of the virtual machines to obtain images from the video

RAMS:

generating thumbnail images of the images obtained from the video RAMs; and

concurrently displaying the thumbnail images.

31. (previously presented) The method according to claim 30, the method further

comprising:

determining display modes corresponding to, respectively, the video RAMs of the

virtual machines; and

generating the thumbnail images in accordance with the display modes.

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32. (previously presented) The method according to claim 30, wherein the thumbnail

images are displayed to reflect the video RAMs in real time.

33. (previously presented) A method, comprising:

displaying images corresponding to respective virtual machines configured to host

concurrently executable operating systems on a host computer, where the thumbnail images

are displayed together, and where the images comprise reduced portions of at least portions

of display outputs outputted for display by the respective virtual machines.

34. (previously presented) The method according to claim 33, wherein the displaying

further comprises displaying the images in a graphical user interface that can be interacted

with by a user to control execution of the virtual machines.